

BACKGROUND OF THE INVENTION

(0001) In the trucking industry it is desirable to be able to secure loads on flat bed

trailers. A variety of techniques have been used to secure loads on a flat bed.

The most commonly used method today is to secure the load with straps. These

5 straps are positioned over a load and cinched down using winding winches

secured to the trailer just below the bed. Once the load is removed the straps

must be wound back up on a winch and this is currently done by hand.

(0002) The straps used to secure a load can be in excess of 30 feet in length and winding

them up by hand is very time consuming. The winding winches used are fairly

10 standard in the industry and include a cylindrical winding lug having four radial

holes through the cylindrical wall and one hole through the center. The lug is

typically used in conjunction with a cheater bar to provide extra leverage in

cinching down the straps. Because of the problem with hand winding there has

been some attempt to develop a tool to engage the lug to assist in winding up the

15 straps.

(0003) Patent 6,102,637 to Mocci shows one prior art approach to winding straps on a flat

bed trailer. The device of Mocci uses a speed handle that engages the lug of a

standard winch. The main problem with the device shown by Mocci is that it puts

the operator in an impossible position under the truck and requires two hands to

20 operate. Experiments have shown that to wind a strap the operator needs one

hand to guide the strap onto the winch as it is wound. The device shown by

Mocci requires the operator to stop frequently to straighten and guide the strap

onto the winch.

(0004) A second prior art device is shown by Salemno et al 5,775,175. Patent 5,775,175 shows a crank that would require only one hand to operate but the device shown also has several disadvantages. One problem with 5,775,175 is that it is complex to manufacture, requiring a number of individual parts and machining operations to build. Experience has also shown that the handle has a tendency to slip out of the lug holes in use, this is unacceptable to the user.

(0005) Thus it can be seen that there is a need for a strap rewind speed handle that is simple to manufacture and easy and reliable to use.

(0006) SUMMARY OF THE INVENTION

10 (0007) The present invention relates to a speed handle useful in connection with a strap winding winch. The speed handle provides a device that can wind a strap using only one hand such that an operator has a second hand free to guide the strap onto the winch such that the user does not have to stop winding frequently.

15 (0008) The device further provides a handle for winding utilizing a minimum of simple parts put together in a simple way that is inexpensive to build. The device provides a winding handle that will not easily slip out of the winch lug in use.

(0009) Further benefits of the current invention will become apparent in the following detailed description.

BRIEF DESCRIPTION OF THE DRAWINGS

20 Figure 1 shows a perspective view of the handle and;
Figure 2 shows a perspective view of the handle in use.

DETAILED DESCRIPTION OF THE DEVICE

(0010) Figure 1 shows a perspective view of the handle 10. A piece of round bar stock is bent into a shape useful as a winding handle 10. The shape includes a 180 degree bend 12 that creates an extension arm 14. The shape also includes an arm 16 and a handle portion 20. The end section of extension arm 14 can be capped with a circular cap 18 having a slightly larger diameter than the rest of the handle 10. The cap 18 can be attached to the extension arm 14 by welding.

(0011) The handle 10 also includes a handle portion roller 22 and a cap 24 attached to the handle portion 20.

(0012) Figure 2 shows the application of the handle 10, which can be used in conjunction with a strap (S) winding winch (W) attached to a flat bed trailer (T). The strap (S) is attached to a drum (not shown), a rotatable cylindrical lug (L) is attached to one end of the drum and is used to rotate the drum to wind up the strap (S). The handle 10 engages two holes (H) in a winch lug (L) which will typically have four total holes through the cylindrical wall. The handle 10 can then be used as a speed handle to wind up strap (S). The roller 22 is free to rotate about axis 40 through handle portion 20. The roller 22 can be made from steel or plastic and can be coated with rubber or other material to improve the ergonomic feel and usefulness of the handle 10. The roller 22 is held fast in the operator's hand and the handle portion 20 rotates inside the roller 22. This protects the operator's hand from friction that would otherwise occur with handle portion 20. As shown in Figure 2 the diameter of the extension arm 14 is significantly smaller than the hole (H) and the diameter of the cap 18 can be just smaller than the holes (H).

(0013) In operation the handle 10 is inserted through two holes (H) on opposite sides of the winch lug (L). The extension arm 14 passes through the holes (H) as does the circular cap 18. The operator then grabs the roller 22, which is free to rotate on the handle portion 20 and rotates the handle 10 and lug (L) about the winch axis 30 extending through the lug (L). As the winch lug (L) is rotated strap (S) is wound up on the winch (W). The handle 10 only requires one hand to operate so the operator has a hand free to guide the strap (S) onto the winch (W). Experimentation has shown that the cap 18, which has a slightly larger diameter than the diameter of extension arm 14, will catch on the edge of a hole (H) if the handle 10 starts to slip out of the hole (H) while the handle 10 is rotating and thus maintain the handle 10 in winding engagement with the lug (L).